

Vertical Temperature Distributions in LAPD and 35T Phase 1 &2

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Comments

- These Slides were taken from various data taken during the
 - LAPD Run 2 (partial fill)
 - Full fill data available
 - 35T Phase 1 Run
 - 35T Phase 2 Run
- Raw data (a lot!) is still available, but this is representative of the profiles seen during these runs.

RTD Spooler

- 3 RTDs mounted on printed circuit board.
 - 4 wire interface into Lakeshore 218E 8 channel
- Stepper motor could raise and lower pcb from near top of ullage to near bottom of cryostat.

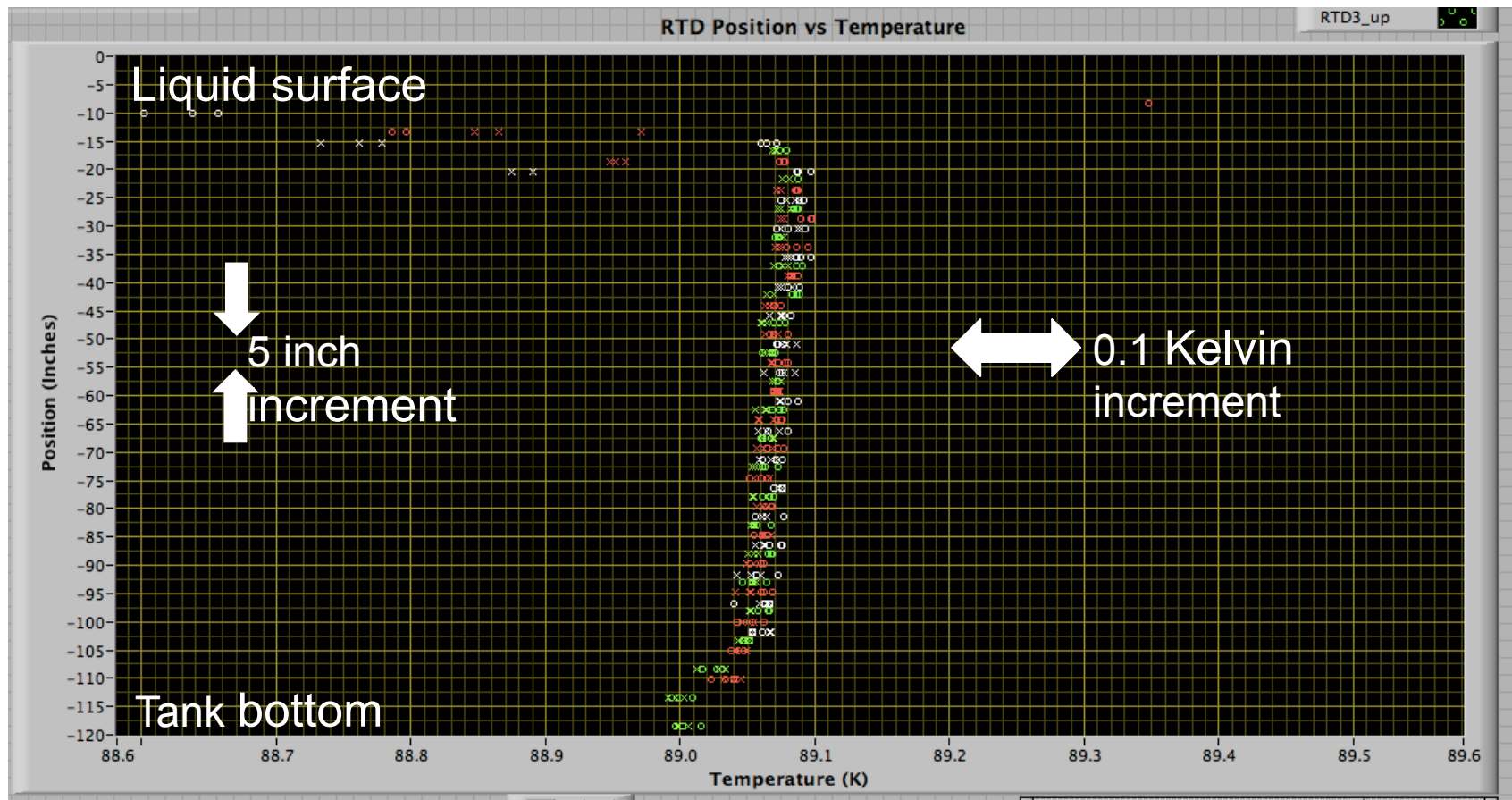
LAPD RTDs



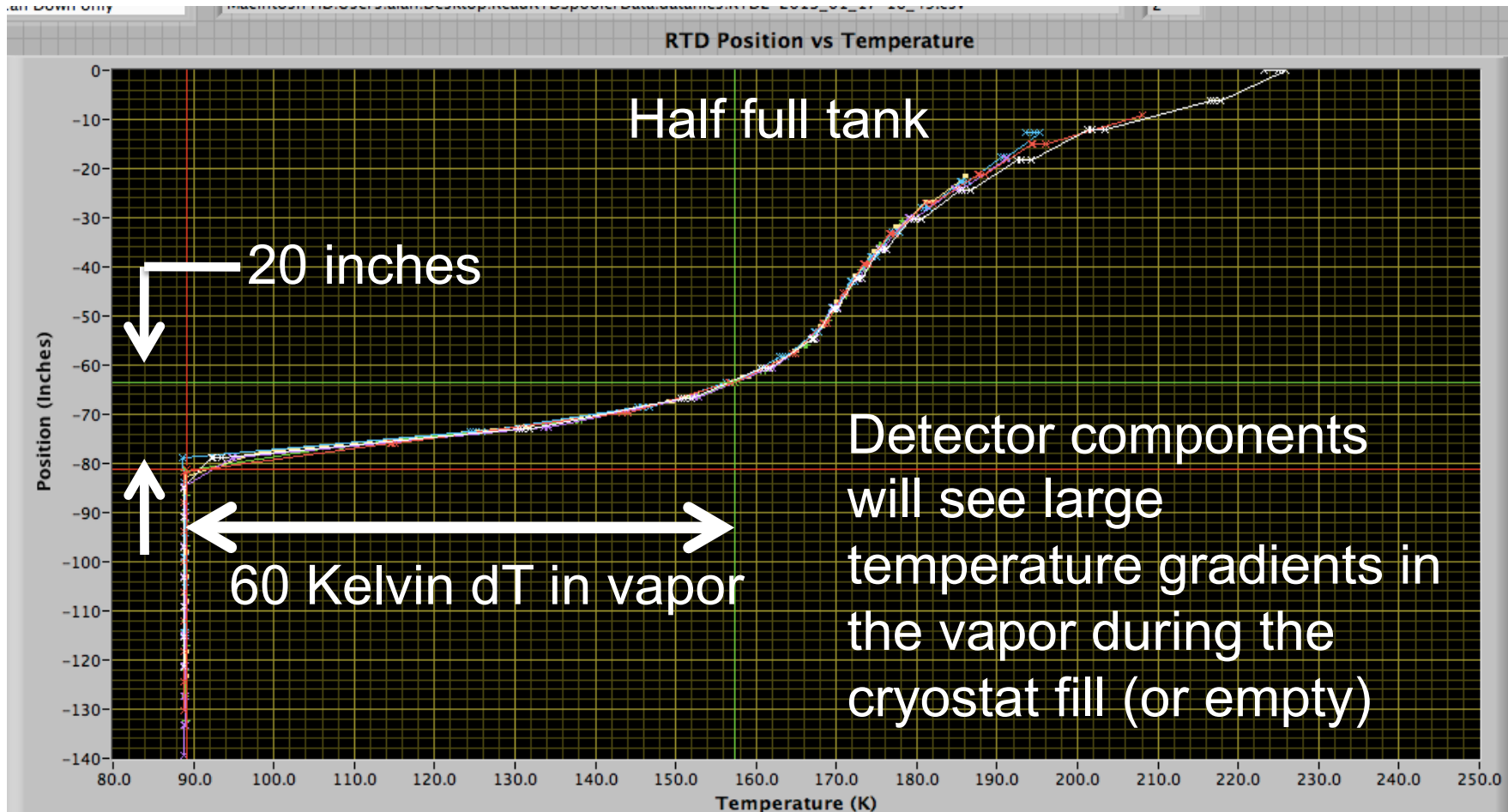
35 T (Phase 1 Run) Spooler

- Biggest change was to weight down the pcb to hang more vertically.
- Otherwise was similar installation to the LAPD Spooler

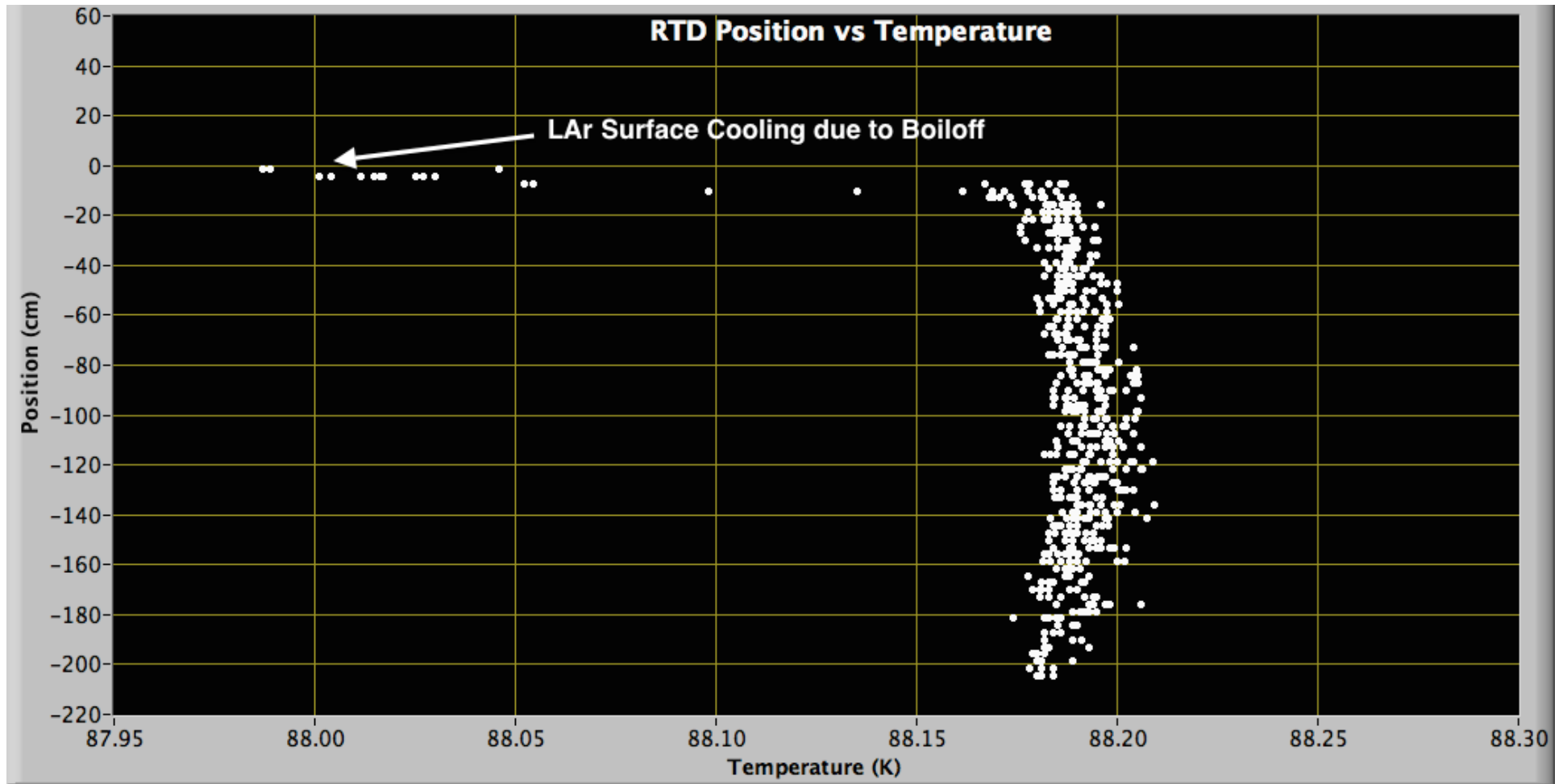
LAPD temperature Profile--liquid



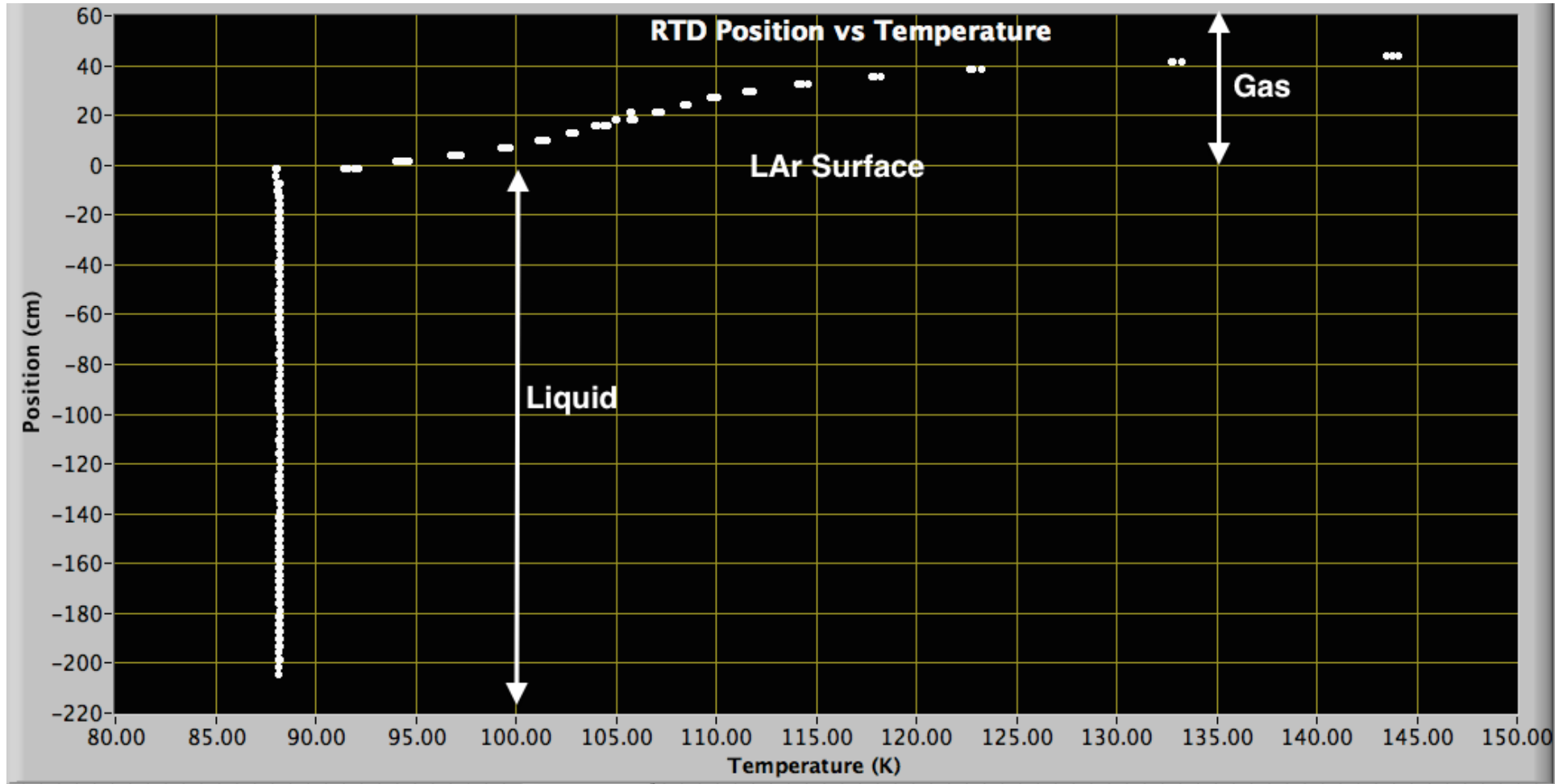
LAPD temperature Profile--liquid



35 Ton Phase 1 Run Liquid T Profile



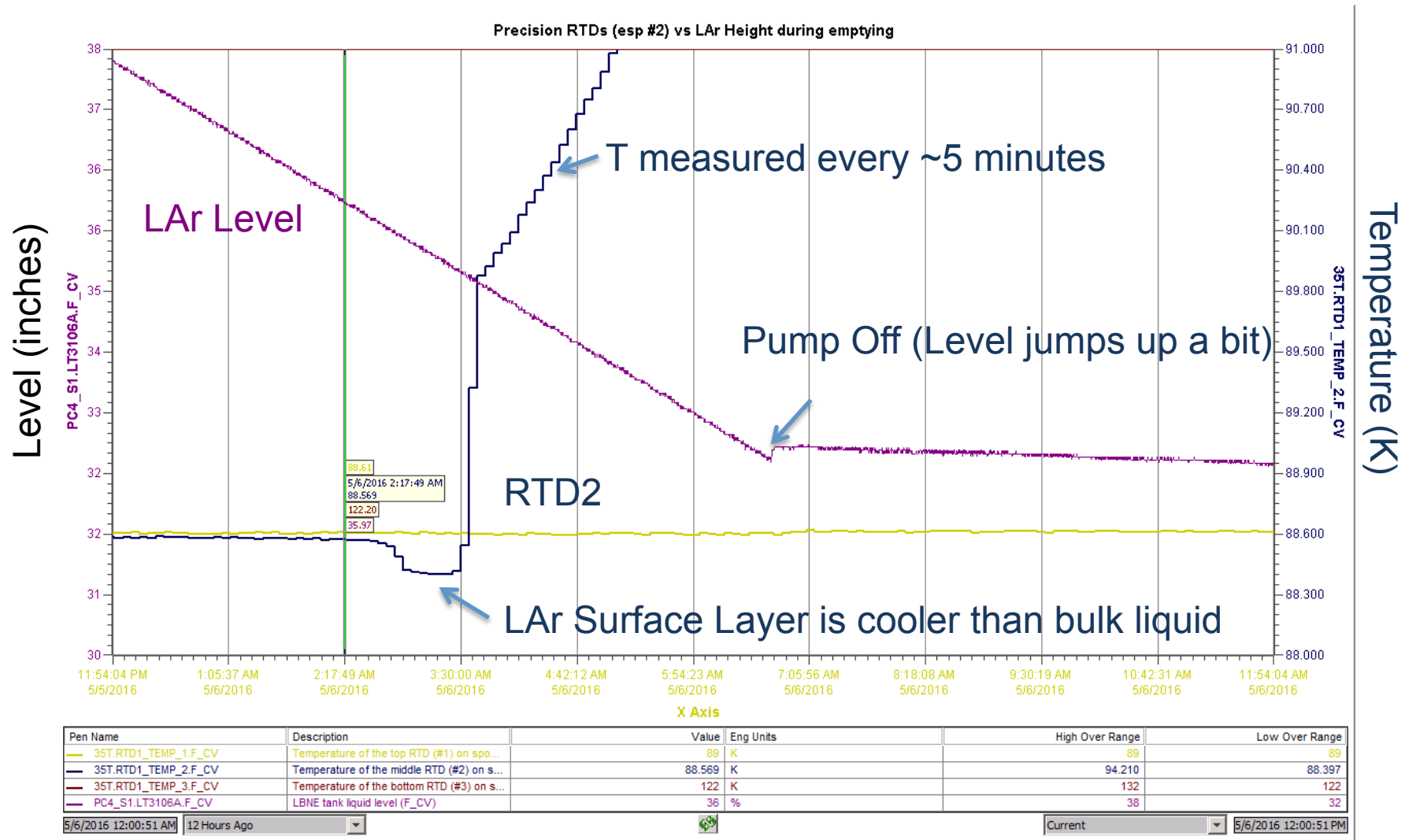
35 Ton Phase 1 Run Full T Profile



35 Ton Phase 2

- No Spooler, but did have 4 RTDs mounted on top of Purity Monitors.
 - One on top of PrM4 had broken wire and didn't work.
- During both filling and emptying, the levels dropped through these RTDs, so we could measure the temperature gradient in the ullage.

RTD2 during emptying



35T Phase 2

Temperature Profile during emptying
(same data as previous slide, except Plot shows T vs Level (cm))

